

Reflex Sensor with Analog Output

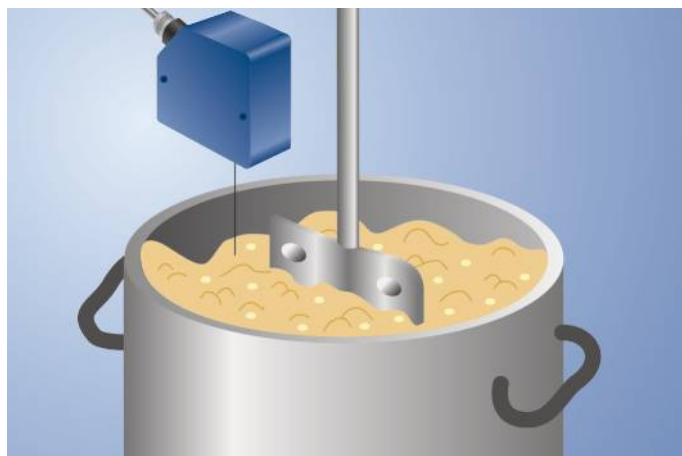
HT66MGV80

Part Number



- Digital, analog and error output
- Go/no-go testing possible
- Infrared light
- Triple beam correction principle

These sensors are equipped with an analog output, as well as a digital output. The upper and lower switching points of the digital output can be adjusted with two potentiometers. The digital output is activated when an object is located within the window defined in this way.

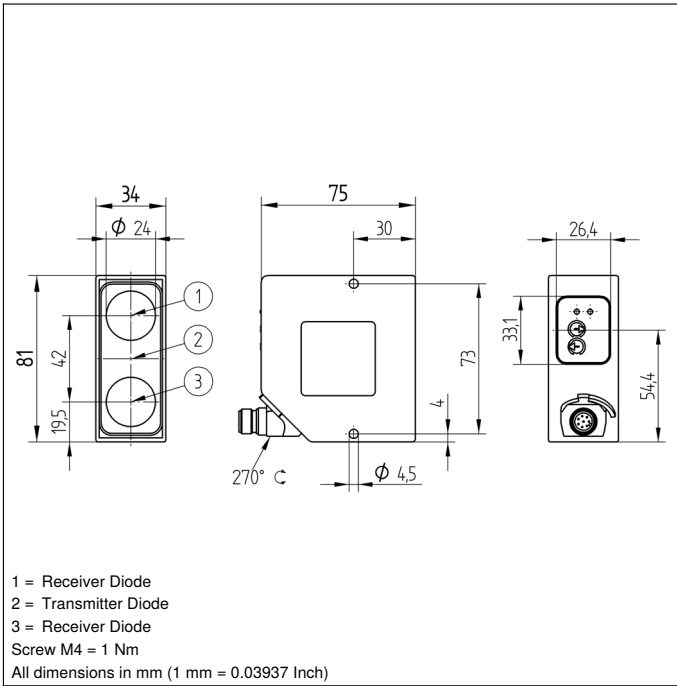


Technical Data

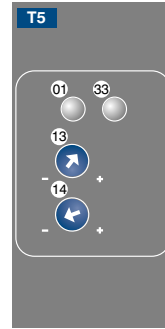
Optical Data	
Working Range	350...850 mm
Measuring Distance	600 mm
Measuring Range	500 mm
Resolution	see Table 1
Linearity	1 %
Switching Hysteresis	20 mm
Light Source	Infrared Light
Wave Length	880 nm
Service Life (T = +25 °C)	100000 h
Risk Group (EN 62471)	1
Max. Ambient Light	10000 Lux
Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U _b = 24 V)	< 50 mA
Cut-Off Frequency	100 Hz
Response Time	5 ms
Temperature Drift	200 μm/K
Temperature Range	-10...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Error Output Voltage Drop	< 2,5 V
PNP Error Output/Switching Current	200 mA
Analog Output	0...10 V
Output Current Analog Output	500 μA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic
Degree of Protection	IP67
Connection	M12 × 1; 8-pin
Error Output	●
PNP NO	●
Analog Output	●
Connection Diagram No.	506
Control Panel No.	T5
Suitable Connection Technology No.	80
Suitable Mounting Technology No.	330

Complementary Products

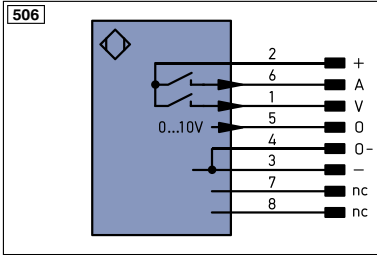
Analog Evaluation Unit AW02



Ctrl. Panel



- 01 = Switching Status Indicator
- 13 = Upper Potentiometer
- 14 = Lower Potentiometer
- 33 = Analog Voltage Output-/Error Warning



Legend		Legend		Legend	
+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	AMIN	Digital output MIN
A	Switching Output (NO)	U	Test Input inverted	AMAX	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	AOK	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	0Lr	Brightness output
T	Teach Input	AWv	Valve Output	M	Maintenance
Z	Time Delay (activation)	a	Valve Control Output +		
S	Shielding	b	Valve Control Output 0 V		
RxD	Interface Receive Path	SY	Synchronization		
TxD	Interface Send Path	E+	Receiver-Line		
RDY	Ready	S+	Emitter-Line		
GND	Ground	≡	Grounding		
CL	Clock	SnR	Switching Distance Reduction		
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path		
	IO-Link	Tx+/-	Ethernet Send Path		
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)		
IN	Safety Input	La	Emitted Light disengageable		
OSSD	Safety Output	Mag	Magnet activation		
Signal	Signal Output	RES	Input confirmation		
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactor Monitoring		
EN0RS42	Encoder 0-pulse 0-0 (TTL)	ENAR542	Encoder A/Ā (TTL)		
		ENBR542	Encoder B/B̄ (TTL)		

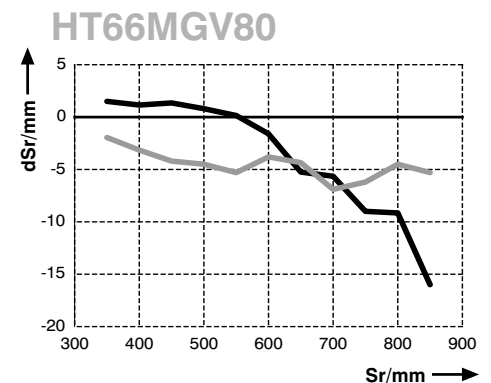
Wire Colors according to DIN IEC 757	
BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow

Table 1

Working Distance	350 mm	600 mm	850 mm
Spot Diameter	6 mm	10 mm	20 mm
Resolution	0,3 mm	3 mm	8 mm

Error of Measurement

Typical characteristic curve based on Kodak white (90 % remission)



Sr = Switching Distance
 dSr = Switching Distance Change
 — black 6 % remission
 — grey 18 % remission

